MSN
Research for Better Medicines

Solvent Recovery System

Date: 19th JULY-2025

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Fresh solvent Purchased trend data from LifeScience-s for FY 2025-26

S.No.	Month	Qty in KL	Value in Cr.	Average	
				Qty. (KL)	Value(in Cr.)
1	Avg. (24-25)	692	4.00	579	2.84
2	Apr-25	636	3.01		
3	May-25	672	3.09		
4	June-25	429	2.44		
5	July-25				
6	Aug-25				
7	Sep-25				
8	Oct-25				
9	Nov-25				
10	Dec-25				
11	Jan-26				
12	Feb-26				
13	Mar-26				
	Total	1737	8.54		

Improvement (baseline FY 2024-25)	
Avg. Qty.	Avg. Value
16.32%	29%

Overall Solvent Consumption, Process recovery & Spent sales details from Life Science-3 (FY 2025-26)

Month	Fresh		RFS		TOTAL	Process Output		Spent Sales	Remarks
	Qty. (KL)	%	Qty. (KL)	%	Qty. (KL)	Qty. (KL)	%	Qty. (MT)	
Avg. (24-25)	702.5	47	806.7	53	1509	1114	74	207.3	
Apr'25	567	43	742	57	1309	1098	98	263	
May'25	598	44	754	56	1352	1176	87	235	
Jun'25	410	38	677	62	1087	993	91	352	
July'25									
Aug'25									
Sep'25									
Oct'25									
Nov'25									
Dec'25									
Jan'26									

Consumption in June'25	Qty in KL	%
Fresh Consumption	410	38
Process distillate Consumption(Reactor distilled)	341	31
RFS Consumption(Job work)	0	0
RFS Consumption(inside SRS)	336	31
Total	1087	100

Spent sales in June'25	Qty. in MT	Value in Lakhs
Distilled mixed solvent	302	30.2
Spent Mixed solvent	50	5.0
Total	352	35.2

Solvent Consumption, Process recovery & Spent sales details from LifeScience-3 (FY 2025-26)

Month	Fresh		RFS		TOTAL	Process Output		Spent Sales	Remarks
	Qty.(KL)	%	Qty.(KL)	%	Qty.(KL)	Qty.(KL)	%	Qty.(MT)	
Avg. (24-25)	552	40	806.7	60	1359	1114.3	74	207.3	
Apr'25	444	37	742	63	1186	1098	98	263	
May'25	414	35	754	65	1168	1176	87	235	
Jun'25	379	35	677	65	1056	993	94	35	
July'25									
Aug'25									
Sep'25									
Oct'25									
Nov'25									
Dec'25									
Jan'26									
Feb'26									
Mar'26									
Avg. Total	412	35	724	64	1137	1089	93	318	

Mar-2026)

Note- Campaign Product consumption Qty. 31 KL

Running Improvements-Process Recovery increased & Further planning details

Product	Stage code	Solvent name	Usage / Batch			Recovery usage % (Up to May-25)	Recovery Usage % (June-25)	Remarks
			Fresh	Recovery	Total			
Leviteracetam	LVTM2	MDC	2500	5500	8000	--	68.75	we will increase recovery quantity in further trails up to 70% usage.
		Acetone	500	1000	1500	66	0	Acetone+MDC one trial batch with water entrainer Column Distillation successfully completed. We achieved 98.5% purity MDC % 98% purity of Acetone. High purity purpose further distillation planned.
Rosuvastatin	RSC2B	Methanol	2000	0	2000	--	0	Zero input fresh methanol to utility. Recovery only support to LS-3 Utility (10 KL Used)

Improvements-Process recovery increased deta

Product	Stage code	Solvent name	Usage / Batch			Recovery Usage %	Remarks
			Fresh	Recovery	Total		
Atorvastatin	ATSC1	Cyclohexane	2000	6000	8000	75	Nutsch filter /workup/Plant Distillation
		IPA	0	6600	6600	100	Water media /CF/Plant /Column distillation using with 10% MC
	ATSC2	Acetonitrile	1120	1690	2810	60	CF/Plant /Column distillation using with 10% MC
		IPA	143	0	143	0	CF/Plant /Column distillation using with 10% MC
	ATSC3	Toluene	400	2600	3000	87	workup /Plant distillation
Pregabalin	AMHA1	Toluene	400	4000	4400	91	Workup / Plant distillation
		Methanol	1800	1500	3300	45	Reaction consumption 600 lts / Plant / Column
	AMHA2	Toluene	0	7400	7400	100	Workup / Plant distillation
		Ammonia	2400	7400	9800	76	Work up/Plant distillation
		Ethylacetate	0	1800	1800	100	workup / CF/Plant distillation
	AMHA3	Toluene	100	700	800	88	workup /Plant distillation
		Methanol	3000	5400	8400	64	Water media/ANFD/Plant distillation
Clopidogril	COPB1	MDC	0	2700	2700	100	Workup/Plant distillation
		Methanol	4120	0	4120	0	Methanol+Acetone Mixed solvent
		Acetone	540	0	540	0	Experiments going on with single solvent
	CTPS1	Toluene	0	1400	1400	100	Workup/plant distillation
		Cyclohexane	0	2200	2200	100	ANFD / Plant distillation
	CGBS1	MDC	0	1600	1600	100	Workup/Plant distillation
		IPA	1200	1650	2850	58	Water media/CF/Plant disti / Column dist
		Toluene	0	7050	7050	100	Water media/CF-2 times /Plant disti / Column dist
		Ethylacetate	1400	2100	3500	60	workup / CF/Plant distillation
	CGBS2	Cyclohexane	400	1600	2000	80	work up / plant Distillation
		Acetone	1300	1700	3000	57	workup / CF/Plant dist. / Column distillation

Top 5 solvents consumption & Top 5 products consumption in each solvent in June'25

SOLVENT NAME	PRODUCT NAME	STAGE	CONSUMPTION QUANTITY (L)		
			FRESH	RFS	TOTAL
Acetone	REGULAR BATCHES				
	Clopidogrel	CGBH2	18565	16300	34865
		COPB12C	640		640
	Levetiracitam	LVTM2	14008.33	6000	20008
	Rosuvastatin	RSC3B	2550		2550
	Total Quantity (L)		35763	22300	58063
	Fresh & Rec %		62	76	
	CAMPAIGN BATCHES				
	Chlorothalidone	CRTD2 Dry	1800	0	1800
	Total Quantity (L)		1800	0	1800
	OVERALL TOTAL QUANTITY(L)		37563	22300	59863
	OVERALL CONSUMPTION %		63	73	

SOLVENT NAME	PRODUCT NAME	STAGE	CONSUMPTION QUANTITY (L)		
			FRESH	RFS	TOTAL
Ethyl Acetate	REGULAR BATCHES				
	Clopidogrel	CGBH1	5600	8400	14000
	Pregabalin	AMHA2	800	7330	8130
	Rosuvastatin	RVST1	57945	97515	155460
	Total Quantity (L)		64345	113245	177590
	Fresh & Rec %		36	76	
	CAMPAIGN BATCHES				
	Romidepsin	RDPC5	2400		2400
	Total Quantity (L)		2400	0	2400
	OVERALL TOTAL QUANTITY(L)		66745	113245	179990
	OVERALL CONSUMPTION %		37	73	

Top 5 solvents consumption & Top 5 products consumption in each solvent in June'25

SOLVENT NAME	PRODUCT NAME	STAGE	CONSUMPTION QUANTITY (L)		
			FRESH	RFS	TOTAL
MDC	**REGULAR BATCHES**				
	Clopidogrel	CGBH1		3600	3600
		COPB12C	6100		6100
	Levetiracitam	LVTM2	31633	76500	108133
	Total Quantity (L)		**37733**	**80100**	**117833**
	Fresh & Rec %		**32**	**76**	
	CAMPAIGN BATCHES				
	Chlorothalidone	CRTD2 Dry	200	0	200
	Gadoteridol	GATD1	40	0	40
	Sparsentan	SPAN2	2566		2566
	Romidepsin	RDPC3	2700		2700
		RDPC4	2250		2250
		RDPC5	800		800
	Total Quantity (L)		8556	0	8556
	OVERALL TOTAL QUANTITY(L)		**46289**	**80100**	**126389**
	OVERALL CONSUMPTION %		**37**	**73**	

SOLVENT NAME	PRODUCT NAME	STAGE	CONSUMPTION QUANTITY (L)		
			FRESH	RFS	TOTAL
IPA	**REGULAR BATCHES**				
	Atorvastatin	ATSC1	6720	39484	46204
		ATSC2	1380		1380
	Clopidogrel	CGBH1	4800	6600	11400
		CGBH2RP	5022.5		5022.5
	Rosuvastatin	RVST1	1690		1690
	Pregabalin	PBLN4	8800	22000	30800
	Total Quantity (L)		**28413**	**68084**	**96496**
	Fresh & Rec %		**29**	**76**	
	CAMPAIGN BATCHES				
	Romidepsin	RDPC5	320		320
	Sparsentan	SPAN1	503		503
	Total Quantity (L)		823	0	823
	OVERALL TOTAL QUANTITY(L)		**29236**	**68084**	**97319**
	OVERALL CONSUMPTION %		**30**	**73**	

Top 5 solvents consumption & Top 5 products consumption in each solvent in June'25

SOLVENT NAME	PRODUCT NAME	STAGE	CONSUMPTION QUANTITY (L)		
			FRESH	RFS	TOTAL
Toluene	REGULAR BATCHES				
	Atorvastatin	ATSC3	10575	14175	24750
	Clopidogrel	CGBH1		13150	13150
		CTPS1	600	7200	7800
	Pregabalin	AMHA1	2200	64400	66600
		AMHA12C		7200	7200
		AMHA2	200	37000	37200
		AMHA3	475	7825	8300
	Total Quantity (L)		14050	150950	165000
	Fresh & Rec %		9	76	
	CAMPAIGN BATCHES				
	Romidepsin	RDPC4	850		850
		RDPC5	420		420
	Sparsentan	SPAN1	2200		2200
		SPAN2	3643		3643
	Total Quantity (L)		7113	0	7113
	OVERALL TOTAL QUANTITY(L)		21163	150950	172113
	OVERALL CONSUMPTION %		12	73	

SOLVENT NAME	PRODUCT NAME	STAGE	CONSUMPTION QUANTITY (L)		
			FRESH	RFS	TOTAL
Methanol	REGULAR BATCHES				
	Atorvastatin	ATSC1	100		100
		ATSC2	800		800
		ATSC3	22450		22450
	Clopidogrel	CGBH1	320		320
		CGBH2	10115		10115
		COPB12C	10690	13520	24210
		CTPS1	500		500
	Levetiracitam	LVTM2	3850		3850
	Pregabalin	AMHA1	34248	22500	56748
		AMHA12C	4000	2600	6600
		AMHA2	3000		3000
		AMHA3	31500	52750	84250
		AMHA3 2C	9000	4500	13500
		PBLN4	2953		2953
	Rosuvastatin	RVST1	25500		25500
	Total Quantity (L)		159026	95870	254896
	Fresh & Rec %		62	76	
	CAMPAIGN BATCHES				
	Chlorothalidone	CRTD2 Dry	500		500
	Fezolinetant	FLNT1	687		687
		FZLT1	50		50
	Gadoteridol	GATD1	1400		1400
	Romidepsin	RDPC3	5700		5700
		RDPC4	1290		1290
		RDPC5	400		400
	Sparsentan	SPAN1	600		600
		SPAN2	958		958
		SPAN2RP	300		300
	Total Quantity (L)		11885	0	11885
	OVERALL TOTAL QUANTITY(L)		170911	95870	266781
	OVERALL CONSUMPTION %		64	73	

SRS Performance for FY 2025-26 from LifeScience-3(6 columns)

S.No.	Month	Input Qty. in KL	Output Qty. in KL	Net Value(in Cr.)
1	Avg. (2024-25)	1061	725	3
1	April-25	1316.5	910.3	4.5
2	May-25	1660.5	1104	5.4
3	June-25	1482	1134	5.5
4	July-25			
5	Aug-25			
6	Sep-25			
7	Oct-25			
8	Nov-25			
9	Dec-25			
10	Jan-26			
11	Feb-26			
12	Mar-26			
	Total	1486.3	1049.4	5.1

RFS (Column Distilled) Solvent stock as on 18/07/2025

Sl#	Name of the solvent	M-Code	Volume in KL	GC
1	Methanol	S-801 D	48	
2	Toluene	S-804 D	39.9	
3	Acetone	S-805 D	43.8	
4	IPA	S-806 D	131	
5	MDC	S-807 D	37.9	
6	Acetonitrile	S-810 D	5.2	
7	Ethyl Acetate	S-811 D	12.2	
8	Cyclo Hexane	S-836 D	17	
9	TEA	M-440	1.4	
10	LS-2		68.5	
Total Qty. (L)			404	

To be distilled & To be sold Solvent stock as on 18/07/2025

S.No.	Name of the solvent	M-Code	Volume in Liters	LS
1	Methanol & Acetone+Methanol	S-801 D	80.6	
2	Toluene	S-804 D	24.6	
3	Acetone	S-805 D	96.1	
4	IPA	S-806 D	186.1	
5	MDC	S-807 D	29.4	
6	Acetone+MDC	S-805+S-807 D	22.5	
7	Acetonitrile	S-810 D	11.6	
8	Ethyl Acetate	S-811 D	47.2	
9	Ethanol	S-822 D	299	
10	N-Heptane	S-831 D	30.5	
11	MTBE	S-832 D	17	
12	CHN+Toluene	S-836+S804 D	95	
13	TEA	M-440	65.6	
14	Aq. Layer, CF ML's, Crude ML's		570	
15	LS-2 Stock		394	
Total Qty. (L)			1969	

S.No.	Name of the solvent	Volume in Liters	Reason for sale
1	Spent Mix	65.0	Mixed Solvent
2.	Silane	7	Sale
Total Qty. (L)		72	

THANK YOU!

MSN LS-3 TEAM

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